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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK NY 10112

EXAMINER

CIRIC, L

ART UNIT

PAPER NUMBER

3743

DATE MAILED:

07/09/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/536,637

Applicant(s)
Hitoshi Nakano

Examiner
Ljiljana V. Ciric *AK*

Art Unit
3743



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Apr 19, 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above, claim(s) 12-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Mar 28, 2000 is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-949) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 2 20) ☐ Other:

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DETAILED ACTION

Election/Restriction

1. Applicant's election of Group I drawn to apparatus claims 1 through 11 in Paper No. 7 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. Claims 12 through 17 are hereby withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** proper traverse in Paper No. 7.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the following features must be shown or the feature(s) canceled from the claim(s): a semiconductor manufacturing equipment [claim 10]; an inspection equipment [claim 11]; and, a measuring equipment [claim 11]. No new matter should be entered.
4. Applicant is required to submit a proposed drawing correction in reply to this Office action.

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Claim Objections

5. Claims 1 through 11 are objected to because of the following informalities, for example: “an air supplied” [claim 1, lines 3-4 and lines 8-9] should be replaced with “air which is supplied” or similar; “a heat” [claim 1, lines 7 and 9] should be replaced with “heat”; “sand” [claim 8, line 3] should be replaced with “and”; and, the limitations “contains one of a water, an anti-freeze, and a fluoride inert liquid” [claim 9, lines 2-3] and “comprising one of an inspection equipment and a measuring equipment” [claim 11, lines 2-3] should each be replaced with a proper Markush limitation grouping. Appropriate correction is required.

Claim Rejections - 35 U.S.C. § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1 through 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

There is a discrepancy between the scope of the limitations in the preamble and that of the limitations in the body of each of claims 1 through 11. For example, the preamble of claim 1 recites the subcombination of an apparatus (presumably an air conditioner, for example), whereas the body of the claim recites the combination of the air conditioning apparatus and a chamber cooled by the apparatus. Similarly, the preamble of claim 1 is similarly drawn to the subcombination of an air conditioning apparatus, whereas the body of the claim additionally

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recites a semiconductor manufacturing equipment. These discrepancies between the scope of the preamble and that of the limitations in the body of each claim render the claims indefinite with regard to the scope of protection sought.

With regard to claim 7, it is not clear which particular structural configuration is described by the limitation "is disposed in juxtaposition of said chamber".

With regard to claim 10, it is not clear what the structural relationship between the manufacturing equipment and the inventive apparatus is.

The above is an indicative, but not necessarily an exhaustive, list of 35 U.S.C. 112, second paragraph, problems. Applicant is therefore advised to carefully review all of the claims for additional problems. Correction is required of all of the 35 U.S.C. 112, second paragraph problems, whether or not these were particularly pointed out above.

Claim Rejections - 35 U.S.C. § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. As best can be understood in view of the indefiniteness of the claims, claims 1 through 9 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Crawford.

Crawford discloses the invention essentially as claimed, including a chamber or room 6 to be air conditioned, an air conditioner disposed in space 7, the air conditioner comprising a

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refrigerator (condenser 27, compressor 28, motor 29, refrigeration coils 26), a first heat exchanger or evaporator/cooler 33, a second heat exchanger which reads on reheating coils 45 or refrigeration coils 26, an air blower or fan 23, a heater which reads on reheating coils 45, a reservoir 10, and pump 14. Thermostat 47 reads on the measuring or inspection equipment as claimed. The coolant disclosed is a refrigerant, which reads broadly on the fluoride inert liquid as recited in claim 9.

The reference thus reads on the claims.

Claim Rejections - 35 U.S.C. § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. As best can be understood in view of the indefiniteness of the claims, claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Crawford.

As noted in greater detail above, Crawford discloses the invention essentially as claimed, except for not specifying that the inventive air conditioning equipment is to be used in conjunction with semi-conductor manufacturing equipment. Nevertheless, Official Notice is hereby taken that it is well-known in the art to use air conditioning equipment during semiconductor manufacturing and to equip machines and clean rooms used in semiconductor manufacturing with air conditioning equipment having the elements of the instant invention.

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It would thus have been obvious to one skilled in the art to modify the Crawford system so as to specifically utilize the same in conjunction with semiconductor manufacture, for example, in order to better control atmospheric conditions during the process and thus minimize defects.

Conclusion

12. The following prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Newton, Onge, Caldwell, Engwall, Gilles, Downing, Jr., Tyler, Hafner, Moratalla et al., and Union KogyoKabushiki Kaisha disclose various air conditioning systems for conditioning enclosed spaces.


13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ljiljana (Lil) V. Ciric, whose telephone number is (703) 308-3925.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ira Lazarus, can be reached on (703) 308-1935. The fax phone number is (703) 305-3463.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.

lvc

June 29, 2001


LJILJANA CIRIC
PATENT EXAMINER